

Name: \_\_\_\_\_

## NORTH DAKOTA STATE UNIVERSITY

College of Science and Mathematics

Biochemistry &amp; Molecular Biology

Fall 2012

ID: \_\_\_\_\_

## GENERAL EDUCATION REQUIREMENTS - 40 Credits Required

## MAJOR REQUIREMENTS - 74 Credits Required

Course	Number	Course Title	Credits	Grade	Course	Number	Course Title	Credits	Grade
<b>First Year Experience (F)</b> 1 credit					BIOC	460	Biochem & Molecular Biol I	3	
UNIV	189 <sup>1</sup>	Skills for Academic Success	1		BIOC	460L	Found of Biochem I Lab	1	
<b>Communications (C)</b> 12 credits					BIOC	461	Biochem & Molecular Biol II	3	
ENGL	110	College Composition I	3		BIOC	465*	Phys Chem & BioPhysics	4	
ENGL	120	College Composition II	3		<i>*CHEM 364 &amp; CHEM 365 will satisfy this requirement and 2 cr. of upper-level science electives.</i>				
COMM	110	Fundamentals of Public Speaking	3		BIOC	473	Meth. Biochem Research	3	
ENGL	321 OR 324	Writing in the Technical Professions OR Writing for the Sciences	3		BIOC	474	Recombinant DNA Tech.	3	
<b>Quantitative Reasoning (R)</b> 3 credits					BIOC	483	Cell Signal Trans Metabolism Reg	3	
MATH	165	Calculus I	4		BIOC	487	Molec Biol of Gene Express	3	
<b>Science &amp; Technology (S)</b> (One course w/ co-requisite lab) 10 credits					BIOL	150/L	General Biology I & Lab	3/1	
PHYS	251/L	University Physics I & Lab	4/1		CHEM	150/160 OR 121/L	Principles of Chem I & Lab OR General Chemistry I & Lab	3/1	
PHYS	252/L	University Physics II & Lab	4/1						
<b>Humanities &amp; Fine Arts (A)</b> (Max of 3 cr in fine arts perform) 6 credits					CHEM	151/161 OR 122/L	Principles of Chem II & Lab OR General Chemistry II & Lab	3/1	
			3						
			3		CHEM	341	Organic Chemistry I	3	
<b>Social &amp; Behavioral Sciences (B)</b> 6 credits					CHEM	342	Organic Chemistry II	3	
			3		CHEM	353	Majors Organic Chemistry Laboratory I	1	
			3		CHEM	354	Majors Organic Chemistry Laboratory II	2	
<b>Wellness (W)</b> 2 credits					CHEM	380	Jr. Chem Bioc Seminar	1	
			2		CHEM	431	Analytical Chemistry I	3	
<b>Cultural Diversity (D)</b>					CHEM	491	Sr. Chem/Bioc Seminar	2	
					MATH	166	Calculus II	4	
					MICR	350/L	General Microbiology & Lab	3/2	
<b>Global Perspectives (G)</b>					STAT	330	Introductory Statistics	3	
					ZOO	315	Genetics	3	
					<b>9 Credits of Upper-Level Science Electives</b>				
<b>COLLEGE REQUIREMENTS for a BS or BA Degree</b>					300-400 level courses in BIOL, BIOC, BOT, ZOO, CHEM, CSCI, MICR, PSCI, PHYS, PPTH, or STAT. No more than 6 credits from one prefix may apply. Research credits (CHEM 494/BIOC 494) may count towards 3 of these credits.				
<b>The College of Science &amp; Mathematics requires an additional 6 credits in Humanities or Social Sciences for the BS degree and an additional 12 credits for the BA degree and two years proficiency of a modern foreign language.</b>									
<b>BA Degree Requirements:</b>									
2nd Yr Lang Proficiency									
HUM or Soc Sci			3						
HUM or Soc Sci			3						
HUM or Soc Sci			3						
HUM or Soc Sci			3						
<b>BS Degree Requirements:</b>					<b>PROGRAM NOTES</b>  <sup>1</sup> Students transferring in 24 or more credits do not need to take UNIV 189.				
HUM or Soc Sci			3						
HUM or Soc Sci			3						

**UNIVERSITY GRADUATION REQUIREMENTS****NOTES/COMMENTS**

<b>Residency at NDSU</b> (15 cr. @ NDSU):	<b>36 Credits</b>		Courses taken to fulfill gen ed, college and major requirements may NOT be taken P/F
<b>Credits at 4-year University:</b>	<b>60 Credits</b>		
<b>Courses numbered 300+</b> (Min. 15 cr @ NDSU):	<b>37 Credits</b>		To complete a degree, the general education requirements of the College of Science & Mathematics and NDSU need to be met along with this major.
<b>Total Credits Required:</b>	<b>122 Credits</b>		